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193040 MLRS, MISSILE NUMBERS BN-047, V01-015, V01-014, BK-004, --ETC(U)
JAN 82 D C KELLER

UNCLASSIFIED ERADCOM/ASL-DR-1220 NL

DR 1220
JANUARY 1982

METEOROLOGICAL DATA REPORT
19304D MLRS
Missile Number BN-047, V01-015, V01-014,
BK-004, V01-010 Thru 013
Round Numbers V-205/MD-59 Thru V-211/MD-65
28 Jan 82

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*		
20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)* Meteorological data gathered for the launching of the 19304D MLRS, Missile No. BN-047, V01-015, V01-014, BK-004, V01-010 Thru 013, Round Numbers V-205/MD-59 Thru V-211/MD-65 presented in tabular form.		

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

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CONTENTS PAGE

INTRODUCTION

19304D MLRS, Missile Numbers BN-047, V01-015, V01-014, BK-004, V01-010, V01-011, V01-012, and V01-013, Round Numbers V-205/MD-59, V-206/MD-60, V-207/MD-61, V-208/MD-62, V-209/MD-63, V-210/MD-64, V-211/MD-65, and V-212/MD-66, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0900:01, 0900:06, 0900:11, 0900:15, 0900:20, 0900:24, 0900:29, and 0900:33 MST, 28 Jan 1982. The scheduled launch times were 0900, 0900:04.5, 0900:09, 0900:13.5, 0900:18, 0900:22.5, 0900:27, and 0900:31.5 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Snads Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC33 Met Site at T-0 minutes.

(2) Anemometer data were provided form existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

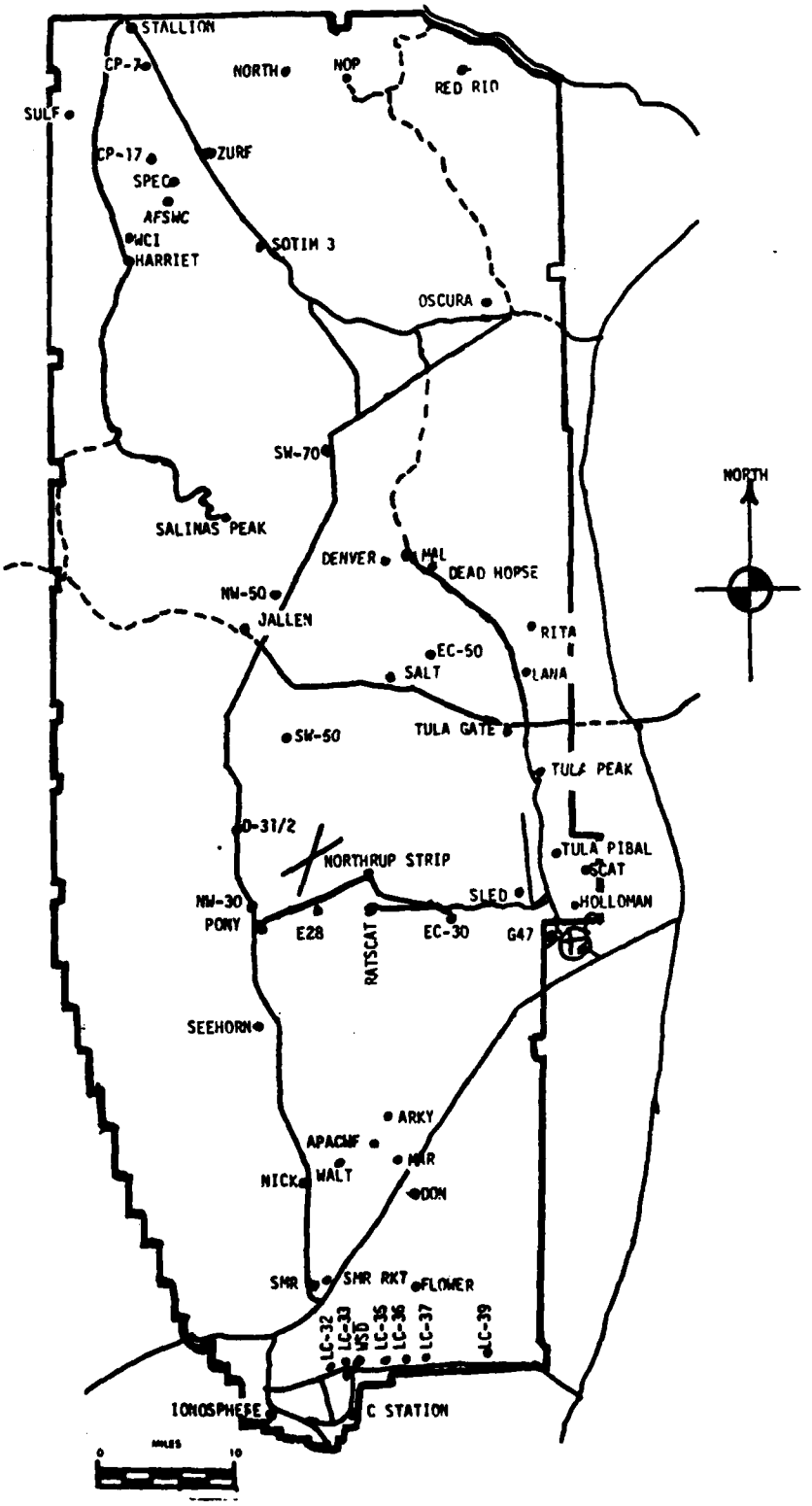
(1) Low level wind data were obtained form pilot-balloon observations at:

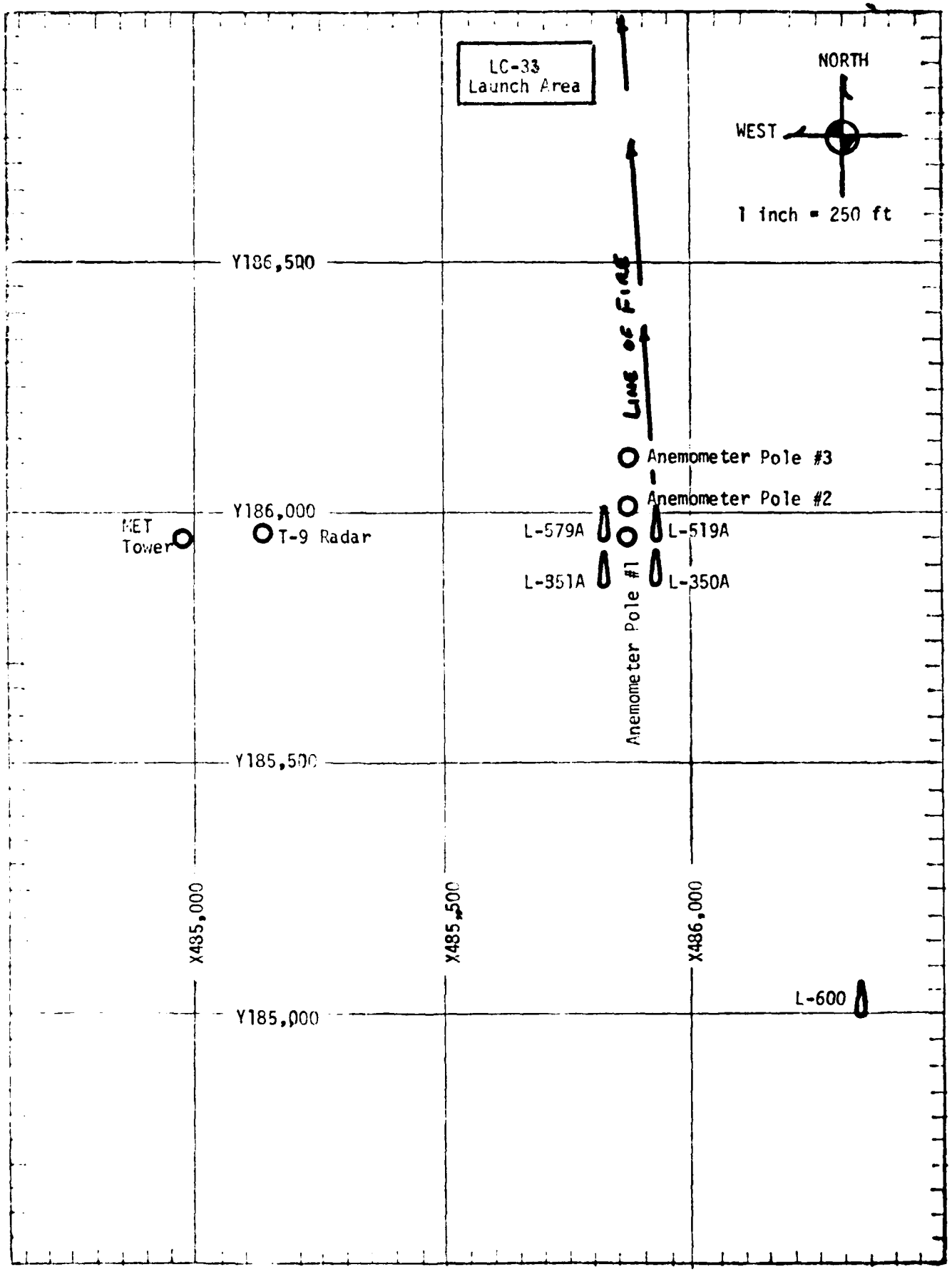
SITE AND ALTITUDE	
WSD	2 Km
NICK	2 Km

(2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME	
LC 37	0600 MST
WSD	0700 MST
WSD	0900 MST

WSMR METEOROLOGICAL SITES




LC-33
Launch Area
NORTH
WEST
1 inch = 250 ft
Y186,500
Line of Fire
Anemometer Pole #3
Anemometer Pole #2
Y186,000
MET
Tower
T-9 Radar
L-579A
L-519A
L-351A
L-350A
Anemometer Pole #1
Y185,500
X485,000
X485,500
X486,000
L-600
Y185,000

PROJECT SURFACE OBSERVATION

TABLE 1

STATION LC-33 E and A

DATE 28 (DAY) Jan (MONTH) 82 (YEAR)

X= 485,135.76 Y= 185,919.24 H= 3988.57

TIME MST	PRESSURE mbs	TEMPERATURE °F	TEMPERATURE °C	DEW POINT °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m³	WIND DIRECTION degs Tn	WIND SPEED kts	WIND CHARACTER kts	VISIBILITY
0900	882.6		5.6		-2.4	56	1101		CALM		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS 1st LAYER AMT	1st LAYER TYPE	1st LAYER HGT	2nd LAYER AMT	2nd LAYER TYPE	2nd LAYER HGT	3rd LAYER AMT	3rd LAYER TYPE	3rd LAYER HGT	REMARKS
	1/10	AC	12,000	2/10	AS	15,000	1/10	CI	25,000	

PSYCHROMETRIC COMPUTATION

TIME: MST	0900		
DRY BULB TEMP.	5.6		
WET BULB TEMP.	2.1		
WET BULB DEPR.	3.5		
DEW POINT	-2.4		
RELATIVE HUMID.	56		

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30		CALM	-30		CALM	-30		CALM
-20		CALM	-20		CALM	-20		CALM
-10		CALM	-10		CALM	-10		CALM
0.0		CALM	0.0		CALM	0.0		CALM
+10		CALM	+10		CALM	+10		CALM

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484.982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30		CALM	-30	109	01
-20		CALM	-20	109	01
-10		CALM	-10	109	01
0.0		CALM	0.0		CALM
+10		CALM	+10		CALM

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30		CALM	-30		CALM
-20		CALM	-20		CALM
-10		CALM	-10		CALM
0.0		CALM	0.0		CALM
+10		CALM	+10		CALM

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 28 Jan 1982

SITE: WSD

TIME: 0900 MST

WSTM COORDINATES:

X= 488,580.0

Y= 185,045.0

H= 3,989.5

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		CALM
150	169	08
210	164	12
270	170	13
330	168	12
390	179	12
500	169	13
650	179	17
800	172	17
950	180	17
1150	183	13
1350	190	16
1550	205	17
1750	223	21
2000	229	26

Data obtained form
Nike-Herc tracked
Pilot-balloon observations

SITE: NICK

TIME: 0900 MST

WSTM COORDINATES:

X= 470,734.56

Y= 255,775.64

H= 4,126.57

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		CALM
150	163	09
210	166	12
270	170	14
330	173	16
390	175	16
500	175	17
650	172	18
800	175	16
950	195	13
1150	221	14
1350	231	18
1550	231	20
1750	236	21
2000	241	23

Data obtained form
Single-Theodolite tracked
Pilot-balloon observations

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES

28 January 1982

LC37 0600 MST	WSO 0700 MST	WSO 0900 MST
METCM1324063	METCM1324064	METCM1324064
281300124881	281400122881	281600122882
00000000 27310881	00213006 27330881	00000000 27770882
01387008 27990870	01292005 28000871	01303007 28100372
02325015 28470844	02333014 28510845	02303013 28480846
03339014 28310805	03313011 28400805	03315016 28400806
04371012 27890757	04357012 28020757	04355016 28110759
05339017 27550712	05411018 27640713	05398024 27750714
06391023 27250669	06419024 27320670	06420025 27400671
07407030 26960629	07427027 27010629	07433031 27180631
08411031 26700590	08446031 26710591	08456036 27040592
09450040 26460553	09450041 26440554	09446040 26710556

STATION ALTITUDE 4051.37 FEET MSL
28 JAN. 82 0600 HRS MST
ASCENSION NO. 1

SIGNIFICANT LEVEL DATA
0280180001
LC-37
TABLE 6

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
881.0	4051.4	-.6	-4.1	77.0
865.2	4535.7	9.7	-4.3	37.0
850.0	5020.1	11.3	-8.0	25.0
826.0	5805.0	11.4	-11.4	19.0
748.2	8482.4	4.3	-14.4	24.0
700.0	10251.2	1.0	-20.6	18.0
611.2	13792.5	-5.2	-25.7	18.0
550.6	16468.5	-9.0	-27.8	20.0
509.2	18440.1	-13.8	-22.6	47.0
500.0	18894.9	-15.0	-20.6	62.0
484.8	19660.9	-16.6	-19.7	77.0
429.4	22622.7	-23.4	-27.5	69.0
414.4	23474.9	-25.7	-28.8	75.0
400.0	24316.0	-27.3	-31.5	67.0
378.2	25636.0	-30.4	-33.9	71.0
364.0	26530.3	-31.1	-40.4	39.0
343.8	27852.8	-34.7	-43.7	39.0
300.0	30929.8	-43.3	-50.6	44.0

STATION ALTITUDE 4051.37 FEET SL
28 JAN. 62 0600 HRS MST
ASCENSION NO. 1

LC-37

TABLE 7

GEODETIC COORDINATES
32.4017 LAT DEG
106.3182 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.4	881.0	-.6	-4.1	77.0	1123.9	643.8	.0	.0	1.000273
4500.0	866.4	8.9	-3.9	39.9	1067.8	655.0	184.1	3.1	1.000260
5000.0	850.6	11.2	-7.8	25.5	1040.4	657.5	184.1	6.6	1.000248
5500.0	835.2	11.4	-10.0	21.3	1021.4	657.5	184.1	10.0	1.000241
6000.0	820.1	10.9	-11.6	19.4	1004.6	656.9	184.1	13.5	1.000236
6500.0	805.1	9.6	-12.1	20.3	990.9	655.4	186.2	12.7	1.000232
7000.0	790.3	8.2	-12.6	21.2	977.4	653.9	190.1	10.4	1.000229
7500.0	775.9	6.9	-13.2	22.2	964.1	652.3	191.8	10.7	1.000225
8000.0	761.7	5.6	-13.8	23.1	951.0	650.7	192.5	11.6	1.000222
8500.0	747.7	4.3	-14.5	23.9	938.0	649.2	195.3	13.6	1.000219
9000.0	733.8	3.3	-16.2	22.2	923.7	648.1	198.1	16.0	1.000214
9500.0	720.1	2.4	-17.9	20.5	909.6	646.9	201.0	17.8	1.000210
10000.0	706.7	1.5	-19.7	18.9	895.8	645.8	204.6	18.8	1.000206
10500.0	693.4	.6	-21.0	18.0	881.9	644.7	209.4	19.8	1.000202
11000.0	680.2	-.3	-21.7	18.0	868.0	643.7	216.5	21.2	1.000199
11500.0	667.3	-1.2	-22.4	18.0	854.3	642.6	221.8	22.9	1.000195
12000.0	654.6	-2.1	-23.1	18.0	840.8	641.6	224.7	24.9	1.000192
12500.0	642.2	-2.9	-23.9	18.0	827.5	640.6	226.3	26.9	1.000189
13000.0	630.0	-3.8	-24.6	18.0	814.5	639.5	226.8	28.6	1.000186
13500.0	618.1	-4.7	-25.3	18.0	801.7	638.5	229.9	30.1	1.000183
14000.0	606.3	-5.5	-25.9	18.2	788.7	637.5	234.7	31.6	1.000180
14500.0	594.6	-6.2	-26.3	18.5	775.6	636.7	239.3	32.3	1.000177
15000.0	583.1	-6.9	-26.6	18.9	762.6	635.8	243.7	33.0	1.000174
15500.0	571.8	-7.6	-27.0	19.3	749.9	635.0	245.5	35.2	1.000171
16000.0	560.8	-8.3	-27.4	19.6	737.4	634.1	246.9	37.6	1.000168
16500.0	549.9	-9.1	-27.6	20.4	725.1	633.2	249.2	39.5	1.000165
17000.0	539.1	-10.3	-25.5	27.3	714.1	631.8	251.4	41.4	1.000163
17500.0	528.5	-11.5	-24.1	34.1	703.3	630.3	255.1	41.7	1.000161
18000.0	518.2	-12.7	-23.2	41.0	692.7	628.9	259.1	41.9	1.000160
18500.0	508.0	-14.0	-22.3	49.0	682.2	627.4	261.7	42.1	1.000158
19000.0	497.9	-15.2	-20.5	64.1	671.8	626.0	264.1	42.4	1.000156
19500.0	488.0	-16.3	-19.8	73.8	661.1	624.7	265.0	42.9	1.000155
20000.0	478.1	-17.4	-20.6	76.1	650.6	623.3	265.3	44.0	1.000152
20500.0	468.4	-18.5	-21.9	74.7	640.3	621.9	264.1	46.9	1.000149
21000.0	458.9	-19.7	-23.2	73.4	630.2	620.5	263.7	48.6	1.000146
21500.0	449.6	-20.8	-24.5	72.0	620.3	619.1	263.8	49.5	1.000143
22000.0	440.5	-22.0	-25.8	70.7	610.5	617.6	265.7	49.2	1.000140
22500.0	431.6	-23.1	-27.1	69.3	600.9	616.2	267.7	49.3	1.000138
23000.0	422.7	-24.4	-28.0	71.7	591.7	614.8	269.4	51.4	1.000135
23500.0	414.0	-25.7	-28.9	74.8	582.6	613.4	271.1	52.8	1.000133

UPPER AIR DATA
0280180001
LC-37

STATION ALTITUDE 4051.37 FEET MSL
28 JAN. 82 0600 HRS MST
ASCENSION NO. 1

GEODETIC COORDINATES
32.40175 LAT DEG
106.51232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.4	-26.7	-30.5	70.0	572.7	611.7	272.7	53.7	1.000131
24500.0	396.9	-27.7	-31.9	67.6	563.1	610.4	274.4	55.7	1.000128
25000.0	388.6	-28.9	-32.8	69.1	554.0	609.0	275.7	58.0	1.000126
25500.0	380.4	-30.1	-33.7	70.6	545.0	607.5	275.6	61.8	1.000124
26000.0	372.4	-30.7	-36.2	58.0	534.8	606.7	275.4	65.0	1.000121
26500.0	364.5	-31.1	-40.1	40.1	524.4	606.2	274.6	65.4	1.000118
27000.0	356.7	-32.4	-41.6	39.0	516.0	604.6	274.0	65.6	1.000116
27500.0	349.1	-33.7	-42.8	39.0	507.9	602.8	273.9	64.7	1.000114
28000.0	341.6	-35.1	-44.0	39.2	499.8	601.1	273.6	64.2	1.000112
28500.0	334.1	-36.5	-45.1	40.1	491.8	599.3	273.1	64.5	1.000110
29000.0	326.8	-37.9	-46.2	40.9	483.8	597.6	272.4	66.3	1.000108
29500.0	319.6	-39.3	-47.3	41.7	476.1	595.8			1.000107
30000.0	312.6	-40.7	-48.5	42.5	468.5	594.0			1.000105
30500.0	305.8	-42.1	-49.6	43.3	461.0	592.2			1.000103

STATION ALTITUDE 4051.37 FEET MSL
28 JAN. 82 0600 HRS MST
ASCENSION NO. 1

MANDATORY LEVELS
0280130001
LC-37

TABLE 8

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	5016.	11.3	-8.0	25.	184.1	6.7
800.0	6673.	9.1	-12.3	21.	187.4	11.9
750.0	8411.	4.5	-14.4	24.	194.7	13.2
700.0	10241.	1.0	-20.6	18.	206.2	19.2
650.0	12183.	-2.4	-23.4	16.	225.6	25.7
600.0	14252.	-5.9	-26.1	16.	237.1	32.1
550.0	16475.	-9.1	-27.6	20.	249.1	39.4
500.0	18868.	-15.0	-20.6	62.	263.5	42.3
450.0	21456.	-20.8	-24.5	72.	263.8	49.4
400.0	24276.	-27.3	-31.5	67.	273.7	54.8
350.0	27391.	-33.6	-42.7	39.	273.9	64.8
300.0	30869.	-43.3	-50.6	44.		

STATION ALTITUDE 3989.00 FEET MSL
28 JAN. 82 0700 HRS MST
ASCENSION NO. 31

SIGNIFICANT LEVEL DATA
0280020031
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 9

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	REL.HUM. PERCENT
881.2	3989.0	-.2	-6.8	61.0
871.3	4290.2	7.2	-3.9	45.0
860.2	4639.3	11.6	-3.3	35.0
850.0	4960.8	11.9	-7.5	25.0
815.6	6100.3	11.4	-9.5	22.0
700.0	10219.2	1.8	-17.1	23.0
636.8	12706.4	-2.3	-24.0	17.0
610.2	13813.5	-5.4	-16.0	43.0
592.8	14559.3	-5.8	-26.2	18.0
524.6	17675.3	-11.2	-29.1	21.0
500.0	18879.6	-14.8	-19.5	67.0
483.6	19707.2	-16.7	-20.7	71.0
475.4	20129.6	-17.2	-22.0	66.0
466.8	20579.2	-18.2	-29.0	36.0
436.0	22243.3	-22.2	-34.0	33.0
428.0	22690.2	-23.4	-30.7	51.0
413.0	23545.9	-25.2	-34.1	43.0
405.8	23965.8	-25.8	-33.9	46.0
400.0	24308.5	-26.6	-31.0	66.0
388.3	25010.7	-29.0	-31.7	77.0
377.0	25706.1	-29.9	-37.0	45.0
362.8	26605.7	-31.3	-39.7	43.0
309.0	30269.7	-41.5		
300.0	30929.3	-42.0		

STATION ALTITUDE 3989.00 FEET MSL
28 JAN. 62 0700 HRS MST
ASCENSION NO. 31

TABLE 10

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RELATIVE HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	881.2	-.2	-6.8	61.0	1122.9	644.1	140.0	6.0	1.000269
4000.0	880.8	.1	-6.7	66.4	1121.3	644.5	140.0	6.0	1.000269
4500.0	864.6	9.8	-3.4	39.0	1062.1	650.0	145.0	7.1	1.000259
5000.0	849.0	11.9	-7.5	24.9	1030.0	650.2	162.2	9.1	1.000247
5500.0	833.6	11.7	-8.4	23.0	1013.2	650.0	172.2	11.0	1.000242
6000.0	818.6	11.4	-9.3	22.3	1000.0	649.7	177.4	13.5	1.000237
6500.0	803.6	10.5	-10.3	22.1	989.7	650.5	176.7	12.1	1.000233
7000.0	788.8	9.3	-11.2	22.2	971.7	650.1	178.6	10.9	1.000229
7500.0	774.3	8.1	-12.1	22.3	957.8	653.8	189.9	10.8	1.000225
8000.0	760.1	7.0	-13.0	22.5	944.2	652.4	201.5	11.4	1.000221
8500.0	746.1	5.8	-13.9	22.6	930.6	651.0	211.9	13.3	1.000217
9000.0	732.4	4.6	-14.8	22.7	917.6	649.6	220.4	15.1	1.000214
9500.0	718.9	3.5	-15.8	22.8	904.5	648.3	228.1	16.9	1.000210
10000.0	705.7	2.3	-16.7	22.9	891.7	646.9	232.4	19.0	1.000207
10500.0	692.6	1.3	-17.8	22.3	878.2	645.7	234.7	21.3	1.000203
11000.0	679.5	.5	-19.2	21.1	864.4	644.7	235.3	23.2	1.000199
11500.0	666.7	-.3	-20.5	19.9	850.7	643.7	236.0	24.9	1.000196
12000.0	654.1	-1.1	-21.9	18.7	837.3	642.7	238.4	25.6	1.000192
12500.0	641.8	-2.0	-23.4	17.5	824.0	641.7	239.9	26.4	1.000188
13000.0	629.6	-3.1	-25.0	23.9	811.7	640.4	240.2	27.3	1.000187
13500.0	617.6	-4.5	-17.4	35.0	800..	639.0	241.9	28.5	1.000186
14000.0	605.8	-5.5	-17.9	36.7	787.8	637.6	244.0	29.8	1.000183
14500.0	594.2	-5.8	-25.1	20.0	775.7	637.2	248.5	31.5	1.000177
15000.0	582.6	-6.6	-26.6	18.4	761.8	636.2	252.9	33.6	1.000173
15500.0	571.3	-7.4	-27.1	18.9	748.7	635.2	253.7	36.5	1.000170
16000.0	560.2	-8.3	-27.5	19.4	735.6	634.1	254.2	39.5	1.000167
16500.0	549.4	-9.2	-28.0	19.9	724.1	633.1	252.5	40.9	1.000165
17000.0	538.7	-10.0	-28.5	20.3	71..	632.1	251.6	42.1	1.000162
17500.0	528.2	-10.9	-29.0	20.8	701.4	631.0	255.3	41.2	1.000159
18000.0	517.9	-12.2	-25.8	33.4	690.8	629.5	259.4	41.1	1.000158
18500.0	507.6	-13.7	-21.3	52.5	680.9	627.8	262.9	41.8	1.000158
19000.0	497.6	-15.1	-19.7	67.0	671.0	626.1	263.1	41.8	1.000157
19500.0	487.7	-16.2	-20.4	70.0	660.6	624.7	262.4	41.6	1.000154
20000.0	477.9	-17.0	-21.6	67.5	649.5	623.7	260.6	41.5	1.000151
20500.0	468.3	-18.0	-22.5	62.9	639.1	622.4	260.3	44.0	1.000146
21000.0	458.8	-19.2	-5..	56.7	629.2	621.0	260.6	46.8	1.000143
21500.0	449.5	-20.4	-31.8	55..	619.4	619.4	262.7	46.6	1.000140
22000.0	440.4	-21.6	-33.3	53.7	60..	618.0	265.1	45.9	1.000138
22500.0	431.4	-22.9	-31..	43.5	600.3	616.4	268.3	46.0	1.000136
23000.0	422.5	-24.1	-31.9	48.1	590.7	615.0	271..	44.6	1.000...

STATION ALTITUDE 3989.00 FEET SL
28 JAN. 82 0700 HRS MST
ASCENSION NO. 51

UPPER AIR DATA
82028003J
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RELATIVE PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	413.8	-25.1	-33.9	43.4	581.0	613.7	275.3	47.6	1.000132
24000.0	405.2	-25.9	-33.6	48.0	570.7	612.7	274.1	50.7	1.000129
24500.0	396.8	-27.3	-31.2	69.0	561.9	611.0	274.3	53.8	1.000128
25000.0	388.5	-29.0	-31.7	76.0	554.0	608.9	275.1	57.7	1.000126
25500.0	380.3	-28.9	-35.2	54.5	542.3	608.9	275.8	61.3	1.000123
26000.0	372.3	-29.7	-37.9	44.3	532.6	607.9	275.5	62.4	1.000120
26500.0	364.4	-31.0	-39.4	43.2	524.2	606.3	274.9	62.5	1.000118
27000.0	356.6	-32.4	-41.8	38.4**	515.9	604.5	273.9	61.1	1.000116
27500.0	348.9	-33.8	-44.5	32.5**	507.7	602.8	273.5	61.5	1.000114
28000.0	341.3	-35.2	-47.6	26.6**	499.6	601.0	273.3	62.8	1.000112
28500.0	333.9	-36.6	-50.9	20.8**	491.7	599.2	273.9	64.4	1.000110
29000.0	326.7	-38.0	-54.9	14.9**	485.9	597.5	274.5	66.1	1.000108
29500.0	319.6	-39.4	-60.0	9.0**	476.2	595.7	275.0	67.6	1.000106
30000.0	312.7	-40.7	-68.7	3.2**	468.7	593.9			1.000104
30500.0	305.8	-41.7			460.3	592.7			1.000103

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
28 JAN. 82 0700 HRS MST
ASCENSION NO. 31

MANDATORY LEVELS
02N0020031
WHITE SANDS

TABLE 11

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4963.	11.9	-7.5	25.	161.3	8.9
800.0	6623.	10.2	-10.5	22.	176.5	11.7
750.0	8370.	6.1	-13.7	23.	209.5	12.8
700.0	10209.	1.8	-17.1	23.	233.3	20.0
650.0	12157.	-1.4	-22.4	18.	239.2	25.8
600.0	14231.	-5.6	-21.0	28.	245.9	30.6
550.0	16456.	-9.1	-28.0	20.	252.4	40.8
500.0	18853.	-14.8	-19.5	67.	263.2	41.8
450.0	21443.	-20.3	-31.7	35.	262.6	46.6
400.0	24268.	-26.6	-31.0	66.	274.2	52.5
350.0	27390.	-33.6	-44.1	33.**	273.5	61.3
300.0	30868.	-42.0				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
26 JAN. 62 0900 HRS MST
ASCENSION NO. 32

SIGNIFICANT LEVEL DATA
62000 0085
WHITE SANDS
TABLE 12

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
882.2	3989.0	3.1	-5.5	53.0
865.0	4518.9	9.1	-5.4	41.0
855.4	4823.5	11.2	-7.1	27.0
850.0	4997.1	11.3	-5.6	35.0
790.4	6985.9	10.0	-5.5	33.0
745.5	8571.9	6.4	-8.7	33.0
700.0	10257.3	2.7	-11.6	34.0
655.6	11988.2	-.8	-15.4	32.0
604.2	14124.5	-2.4	-19.7	25.0
587.4	14659.4	-3.0	-20.2	25.0
539.4	17058.4	-7.9	-24.0	26.0
500.0	18977.8	-13.3	-21.3	51.0
491.6	19401.7	-13.9	-26.6	33.0
436.0	22357.9	-21.3	-32.3	36.0
416.4	23470.1	-23.3	-33.6	38.0
400.0	24433.9	-25.4	-29.4	69.0
395.0	24734.2	-25.7	-29.7	69.0
381.0	25592.0	-27.5	-32.0	65.0
347.2	27769.3	-32.9	-36.9	67.0
331.4	28840.4	-36.0	-40.5	63.0
314.4	30038.1	-38.6	-43.3	61.0
300.0	31093.8	-40.7		
290.2	31835.5	-42.5		
278.4	32753.9	-45.0		
272.0	33264.2	-46.3		
255.0	34679.2	-45.4		
250.0	35116.2	-43.4		
246.3	35440.6	-43.6		
225.6	37383.2	-45.4		
200.0	39993.3	-51.8		
171.7	43226.2	-55.2		
155.2	45334.9	-59.2		
150.0	46038.3	-59.6		
138.8	47630.9	-61.7		
123.2	50038.6	-66.5		
117.2	51039.9	-64.6		
100.0	54201.3	-68.4		
79.8	58663.5	-69.5		
70.0	61266.7	-65.9		
57.6	65169.8	-66.5		

STATION ALTITUDE 3989.20 FEET SL
28 JAN. 62 0900 HRS MST
ASCENSION NO. 32

SIGNIFICANT LEVEL DATA
FLIGHT003
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT
50.0	68040.9	-60.4		
37.6	73937.1	-58.5		
32.8	76825.8	-51.0		
30.0	78745.9	-51.8		
25.6	82170.5	-49.6		
23.2	84315.2	-47.1		
20.0	87551.8	-49.3		
15.8	92717.1	-45.1		
13.2	96709.2	-43.5		
10.0	102921.1	-41.8		
8.9	105554.0	-39.2		

STATION ALTITUDE 3989.00 FEET
28 JAN. 82 0900 HRS MST
ASCENSION NO. 32

TABLE 13

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TRUE)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	882.2	3.1	-5.5	53.0	1110.6	648.1	.0	.0	1.000268
4000.0	881.8	3.2	-5.5	52.6	1109.6	648.2	173.6	.1	1.000267
4500.0	865.6	8.9	-3.5	41.4	1067.0	654.9	173.6	4.5	1.000260
5000.0	849.9	11.3	-3.6	35.0	1030.7	657.7	173.6	8.9	1.000253
5500.0	834.5	11.0	-4.1	34.5	1021.1	657.3	173.6	13.5	1.000249
6000.0	819.4	10.6	-4.6	34.0	1003.8	657.0	174.9	16.2	1.000244
6500.0	804.6	10.3	-5.0	33.5	986.8	656.6	178.8	16.2	1.000240
7000.0	790.0	10.0	-5.5	33.0	970.2	656.1	184.1	15.7	1.000235
7500.0	775.6	8.8	-6.5	33.0	956.4	654.8	191.7	14.9	1.000231
8000.0	761.4	7.7	-7.5	33.0	942.8	653.4	199.1	15.5	1.000227
8500.0	747.5	6.6	-8.5	33.0	929.4	652.1	205.5	16.7	1.000223
9000.0	733.7	5.5	-9.4	33.3	915.9	650.8	214.5	19.5	1.000219
9500.0	720.1	4.4	-10.3	33.6	902.6	649.5	221.4	22.4	1.000215
10000.0	706.8	3.3	-11.1	33.8	889.5	648.2	227.7	23.9	1.000211
10500.0	693.6	2.2	-12.1	33.7	876.3	646.9	232.1	25.1	1.000207
11000.0	680.6	1.2	-13.2	33.1	863.2	645.7	234.2	25.0	1.000203
11500.0	667.8	.2	-14.3	32.6	850.2	644.5	235.9	25.7	1.000200
12000.0	655.3	-.8	-15.4	32.0	837.3	643.3	237.1	27.0	1.000196
12500.0	642.9	-1.2	-16.4	30.3	822.7	642.0	240.7	28.7	1.000192
13000.0	630.7	-1.6	-17.4	28.7	808.3	640.8	244.4	30.5	1.000188
13500.0	618.8	-1.9	-18.4	27.8	794.1	641.9	248.4	32.7	1.000184
14000.0	607.1	-2.3	-19.0	25.4	780.2	641.4	251.5	35.0	1.000181
14500.0	595.6	-2.7	-20.0	25.0	766.5	640.9	253.0	37.1	1.000177
15000.0	584.2	-3.3	-20.4	25.1	753.0	640.2	254.3	38.8	1.000174
15500.0	573.0	-4.4	-21.3	25.3	742.3	638.9	253.0	39.6	1.000171
16000.0	562.0	-5.5	-22.2	25.5	731.1	637.5	251.9	39.9	1.000168
16500.0	551.2	-6.7	-23.0	25.7	720.1	636.2	250.9	39.8	1.000165
17000.0	540.6	-7.8	-23.9	26.0	709.2	634.8	250.4	39.7	1.000163
17500.0	530.1	-9.1	-22.8	31.8	699.0	633.2	250.3	39.8	1.000161
18000.0	519.7	-10.5	-22.6	38.3	688.9	631.6	249.8	40.1	1.000159
18500.0	509.5	-12.0	-21.5	44.6	679.0	629.9	247.6	40.6	1.000157
19000.0	499.6	-13.3	-21.5	50.1	669.3	628.2	246.7	41.2	1.000155
19500.0	489.6	-14.1	-26.8	33.1	658.2	627.1	247.3	42.0	1.000150
20000.0	479.8	-15.4	-27.8	33.6	648.2	625.8	248.6	43.2	1.000148
20500.0	470.2	-16.6	-28.7	34.1	638.3	624.1	251.1	45.1	1.000145
21000.0	460.7	-17.9	-29.7	34.6	628.5	622.5	252.5	46.5	1.000143
21500.0	451.5	-19.2	-30.7	35.1	618.9	621.0	253.6	47.3	1.000141
22000.0	442.4	-20.4	-31.6	35.6	609.5	619.5	254.2	47.6	1.000138
22500.0	433.4	-21.6	-32.5	36.3	600.0	618.0	255.9	47.4	1.000136
23000.0	424.6	-22.5	-33.1	37.2	589.8	616.9	258.1	48.4	1.000134

STATION ALTITUDE 3989.00 FEET MSL
28 JAN. 82 0900 HRS [illegible]
ASCENSION NO. 32

[illegible]

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	415.9	-23.4	-33.4	39.6	577.8	615.8	260.4	50.0	1.000131
24000.0	407.3	-24.5	-30.9	55.0	570.3	614.5	263.0	52.5	1.000130
24500.0	398.9	-25.5	-29.5	69.6	560.8	613.3	265.5	55.3	1.000128
25000.0	390.6	-26.3	-30.4	67.8	550.9	612.3	268.3	57.9	1.000126
25500.0	382.5	-27.3	-31.8	65.4	541.8	611.0	270.9	60.5	1.000123
26000.0	374.4	-28.5	-32.9	65.4	533.0	609.5	272.0	61.7	1.000121
26500.0	366.5	-29.8	-34.1	65.8	524.4	607.9	272.7	62.4	1.000119
27000.0	358.8	-31.0	-35.2	66.3	516.0	606.3	272.9	63.0	1.000117
27500.0	351.2	-32.2	-36.3	66.8	507.7	604.8	273.0	63.4	1.000115
28000.0	343.7	-33.6	-37.7	66.1	499.7	603.1	273.1	64.2	1.000113
28500.0	336.3	-35.0	-39.3	64.3	491.9	601.2	273.1	65.0	1.000111
29000.0	329.1	-36.3	-40.8	62.7	484.0	599.6	273.1	65.6	1.000109
29500.0	321.9	-37.4	-42.0	61.9	475.7	598.2	273.2	66.2	1.000107
30000.0	314.9	-38.5	-43.2	61.1	467.5	596.8	273.8	66.8	1.000105
30500.0	308.0	-39.5	-49.2	34.3**	459.2	595.5	274.5	67.5	1.000103
31000.0	301.3	-40.5	-54.7	5.4**	451.1	594.2	274.9	68.3	1.000101
31500.0	294.6	-41.7			443.4	592.7	275.2	69.1	1.000099
32000.0	288.0	-42.9			435.9	591.1	275.3	71.7	1.000097
32500.0	281.6	-44.3			428.7	589.3	275.3	74.5	1.000095
33000.0	275.3	-45.6			421.5	587.6	274.2	77.6	1.000094
33500.0	269.1	-46.2			413.0	587.0	273.1	80.6	1.000092
34000.0	263.0	-45.8			405.1	587.4	271.7	82.7	1.000090
34500.0	257.1	-45.5			39[illegible].4	587.8	270.4	84.8	1.000088
35000.0	251.3	-43.9			382.0	589.8	269.4	86.4	1.000085
35500.0	245.7	-43.6			373.0	590.2	268.4	88.0	1.000083
36000.0	240.2	-44.1			365.3	589.6	266.9	89.6	1.000081
36500.0	234.8	-44.6			357.9	589.0	265.2	91.3	1.000080
37000.0	229.6	-45.0			350.6	588.4	263.6	92.5	1.000078
37500.0	224.4	-45.7			343.7	587.6	262.5	93.5	1.000077
38000.0	219.3	-46.9			337.6	586.0	261.6	94.5	1.000075
38500.0	214.3	-48.1			331.7	584.4	260.9	95.6	1.000074
39000.0	209.4	-49.4			325.9	582.6	260.0	94.9	1.000073
39500.0	204.6	-50.6			320.3	581.2	258.9	92.8	1.000071
40000.0	199.9	-51.8			314.7	579.6	257.6	88.5	1.000070
40500.0	195.3	-52.3			306.1	578.9	256.6	82.7	1.000069
41000.0	190.7	-52.9			301.6	578.2	256.1	79.2	1.000067
41500.0	186.3	-53.4			295.3	577.5	255.9	77.1	1.000066
42000.0	181.9	-53.9			289.1	576.8	256.1	76.6	1.000064
42500.0	177.7	-54.4			283.0	576.1	256.0	77.1	1.000063
43000.0	173.6	-55.0			277.1	575.5	256.9	77.8	1.000062

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
[illegible]
WHITE SANDS,

STATION ALTITUDE 3989.00 FEET MSL
28 JAN. 62 0900 HRS MST
ASCENSION NO. 52

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	169.5	-55.7			271.5	574.5	257.0	78.5	1.000060
44000.0	165.5	-56.7			266.3	573.2	256.7	77.5	1.000059
44500.0	161.5	-57.6			261.1	571.9	255.9	75.0	1.000058
45000.0	157.7	-58.6			256.0	570.7	254.9	70.8	1.000057
45500.0	154.0	-59.3			250.8	569.7	253.5	65.1	1.000056
46000.0	150.3	-59.6			245.1	569.3	252.4	61.5	1.000055
46500.0	146.7	-60.2			239.9	568.5	251.7	59.9	1.000053
47000.0	143.1	-60.9			234.9	567.6	251.2	59.2	1.000052
47500.0	139.7	-61.5			229.9	566.7	250.9	59.6	1.000051
48000.0	136.3	-62.4			225.3	565.5	250.6	59.2	1.000050
48500.0	133.0	-63.4			220.6	564.2	250.6	57.4	1.000049
49000.0	129.7	-64.4			216.5	562.8	250.9	55.7	1.000048
49500.0	126.5	-65.4			212.2	561.5	251.0	54.2	1.000047
50000.0	123.4	-66.4			208.0	560.1	251.2	52.9	1.000046
50500.0	120.4	-65.6			202.1	561.2	251.1	52.7	1.000045
51000.0	117.4	-64.7			196.2	562.5	251.0	52.5	1.000044
51500.0	114.5	-65.2			191.8	561.9	251.2	52.9	1.000043
52000.0	111.7	-65.3			187.6	561.0	251.6	53.6	1.000042
52500.0	108.9	-66.4			183.5	560.2	252.1	54.5	1.000041
53000.0	106.2	-67.0			179.5	559.4	253.6	55.6	1.000040
53500.0	103.6	-67.5			175.6	558.6	253.6	56.3	1.000039
54000.0	101.1	-68.1			171.7	557.8	254.7	55.7	1.000038
54500.0	98.5	-68.5			167.7	557.4	255.6	55.2	1.000037
55000.0	96.1	-68.6			163.6	557.2	256.3	55.7	1.000036
55500.0	93.7	-68.7			159.6	557.0	257.0	56.2	1.000036
56000.0	91.3	-68.8			155.7	556.9	257.3	56.8	1.000035
56500.0	89.0	-69.0			151.9	556.7	257.5	57.4	1.000034
57000.0	86.8	-69.1			148.2	556.5	257.6	53.0	1.000033
57500.0	84.6	-69.2			144.6	556.3	257.6	44.3	1.000032
58000.0	82.5	-69.3			141.1	556.2	257.6	35.2	1.000031
58500.0	80.5	-69.5			137.6	556.0	257.6	25.0	1.000031
59000.0	78.5	-69.0			133.9	556.6	257.4	14.8	1.000030
59500.0	76.5	-68.3			130.1	557.5	257.5	15.8	1.000029
60000.0	74.6	-67.7			126.5	558.5	257.6	17.2	1.000028
60500.0	72.8	-67.0			122.9	559.4	257.7	21.0	1.000027
61000.0	70.9	-66.3			119.5	560.3	257.7	26.3	1.000027
61500.0	69.2	-65.9			116.3	560.8	258.1	31.1	1.000026
62000.0	67.5	-66.0			113.5	560.7	259.1	34.4	1.000025
62500.0	65.8	-66.1			110.7	560.6	260.0	37.6	1.000025
63000.0	64.2	-66.2			108.0	560.5	261.2	40.7	1.000024

STATION ALTITUDE 3989.00 FEET [illegible]
28 JAN. 62 0900 HRS, [illegible]
ASCENSION I.D. 32

[illegible] AIR DATA
[illegible]
[illegible] DATA

GEODETIC COORDINATES
32.00043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TRU)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.6	-66.2			105.4	560.4	262.2	43.9	1.000023
64000.0	61.1	-66.3			102.9	560.3	262.5	45.2	1.000023
64500.0	59.6	-66.4			100.4	560.2	262.3	44.8	1.000022
65000.0	58.1	-66.5			97.9	560.1	262.0	43.6	1.000022
65500.0	56.7	-65.8			95.2	561.0	261.5	37.1	1.000021
66000.0	55.3	-64.7			92.4	562.4	260.7	30.7	1.000021
66500.0	53.9	-63.7			89.7	563.8	259.7	24.4	1.000020
67000.0	52.6	-62.6			87.1	565.3	258.0	18.2	1.000019
67500.0	51.4	-61.5			84.5	566.7	255.1	13.7	1.000019
68000.0	50.1	-60.5			82.1	568.1	252.2	12.8	1.000018
68500.0	48.9	-60.3			80.0	568.4	248.7	11.8	1.000018
69000.0	47.7	-60.1			78.0	568.7	249.5	11.9	1.000017
69500.0	46.6	-59.9			76.1	568.9	250.5	12.1	1.000017
70000.0	45.5	-59.8			74.3	569.1	251.9	11.8	1.000017
70500.0	44.4	-59.6			72.4	569.3	253.7	11.0	1.000016
71000.0	43.3	-59.4			70.6	569.5	255.7	10.3	1.000016
71500.0	42.3	-59.3			68.9	569.7	256.1	10.4	1.000015
72000.0	41.3	-59.1			67.2	569.9	256.6	10.6	1.000015
72500.0	40.3	-59.0			65.6	570.1	256.6	11.1	1.000015
73000.0	39.3	-58.8			63.9	570.4	257.0	11.9	1.000014
73500.0	38.4	-58.6			62.4	570.6	257.1	12.7	1.000014
74000.0	37.5	-58.3			60.8	571.0	256.9	13.3	1.000014
74500.0	36.6	-57.0			59.0	572.7	254.7	13.8	1.000013
75000.0	35.8	-55.7			57.3	574.4	253.4	14.3	1.000013
75500.0	34.9	-54.4			55.6	576.1	251.6	14.6	1.000012
76000.0	34.1	-55.1			54.0	577.8	249.6	14.9	1.000012
76500.0	33.3	-51.8			52.4	579.5	249.4	15.8	1.000012
77000.0	32.5	-51.9			51.0	580.7	249.9	17.2	1.000011
77500.0	31.8	-51.0			49.6	580.7	250.2	18.6	1.000011
78000.0	31.1	-51.0			48.7	580.7	251.3	22.3	1.000011
78500.0	30.3	-51.0			47.0	580.7	252.2	26.4	1.000011
79000.0	29.6	-50.9			46.5	580.8	252.8	30.5	1.000010
79500.0	29.0	-50.7			45.4	581.1	252.5	30.9	1.000010
80000.0	28.3	-50.5			44.3	581.3	251.9	31.3	1.000010
80500.0	27.7	-50.3			43.2	581.6	251.1	30.2	1.000010
81000.0	27.0	-50.1			42.2	581.9	249.8	24.5	1.000009
81500.0	26.4	-49.9			41.2	582.1	245.7	18.8	1.000009
82000.0	25.8	-49.7			40.2	582.4	240.6	14.3	1.000009
82500.0	25.2	-49.2			39.2	582.8	235.9	10.8	1.000009
83000.0	24.6	-48.6			38.2	583.2	221.1	7.7	1.000009

STATION LATITUDE 39[illegible].00 FEET [illegible]
28 JAN 82 0900 HRS [illegible]
ASCENSION NO. 32

[illegible]
[illegible]
[illegible]

GEODETIC COORDINATES
32.40043 LAT (DEG)
106.37033 LONG (DEG)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.1	-48.1			37.3	584.5	264.2	5.9	1.000008
84000.0	23.5	-47.5			36.3	585.3	102.4	5.1	1.000008
84500.0	23.0	-47.2			35.5	585.6	157.3	5.2	1.000008
85000.0	22.5	-47.6			34.7	585.1	124.6	6.8	1.000008
85500.0	22.0	-47.9			34.0	584.7	107.0	9.6	1.000008
86000.0	21.5	-48.2			33.3	584.2	97.6	12.3	1.000007
86500.0	21.0	-48.6			32.6	583.8	91.1	13.7	1.000007
87000.0	20.5	-48.9			31.9	583.4	85.5	15.1	1.000007
87500.0	20.0	-49.3			31.2	582.9	80.6	15.4	1.000007
88000.0	19.6	-48.9			30.4	583.3	75.6	14.4	1.000007
88500.0	19.2	-48.5			29.7	583.9	69.6	13.4	1.000007
89000.0	18.7	-48.1			29.0	584.4	65.1	13.2	1.000006
89500.0	18.3	-47.7			28.3	584.9	61.6	13.4	1.000006
90000.0	17.9	-47.3			27.6	585.5	58.6	13.6	1.000006
90500.0	17.5	-46.9			26.9	586.0	60.7	15.4	1.000006
91000.0	17.1	-46.5			26.3	586.5	63.6	17.4	1.000006
91500.0	16.7	-46.1			25.6	587.0	64.6	19.3	1.000006
92000.0	16.3	-45.7			25.0	587.6	65.9	18.2	1.000006
92500.0	16.0	-45.3			24.4	588.1	67.1	17.1	1.000005
93000.0	15.6	-45.0			23.8	588.5	63.9	15.9	1.000005
93500.0	15.3	-44.8			23.3	588.7	72.9	14.1	1.000005
94000.0	14.9	-44.6			22.7	589.0	78.0	12.3	1.000005
94500.0	14.6	-44.4			22.2	589.2	84.7	10.7	1.000005
95000.0	14.3	-44.2			21.7	589.5	95.6	9.2	1.000005
95500.0	13.9	-44.0			21.2	589.8	111.4	8.3	1.000005
96000.0	13.6	-43.8			20.7	590.0	129.6	8.1	1.000005
96500.0	13.3	-43.6			20.2	590.3	146.6	8.7	1.000005
97000.0	13.0	-43.4			19.8	590.5	116.2	5.5	1.000004
97500.0	12.7	-43.3			19.3	590.7	60.4	6.1	1.000004
98000.0	12.5	-43.1			18.9	590.8	53.0	10.2	1.000004
98500.0	12.2	-43.0			18.4	591.0	48.6	13.0	1.000004
99000.0	11.9	-42.9			18.0	591.2	49.3	10.3	1.000004
99500.0	11.7	-42.7			17.6	591.4	72.6	9.2	1.000004
100000.0	11.4	-42.6			17.2	591.5	98.3	10.1	1.000004
100500.0	11.1	-42.5			16.8	591.7	129.3	11.9	1.000004
101000.0	10.9	-42.3			16.4	591.9	154.5	16.5	1.000004
101500.0	10.7	-42.2			16.1	592.1	167.4	22.8	1.000004
102000.0	10.4	-42.1			15.7	592.2	174.5	29.8	1.000003
102500.0	10.2	-41.9			15.4	592.4			1.000003
103000.0	10.0	-41.7			15.0	592.7			1.000003

STATION ALTITUDE 3989.00 FEET MSL
28 JAN. 82 0900 HRS MST
ASCENSION NO. 32

UPPER AIR DATA
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	SPEED KNOTS	INDEX OF REFRACTION
103500.0	9.7	-41.2			14.6	595.3			1.000003
104000.0	9.5	-40.7			14.5	595.9			1.000003
104500.0	9.3	-40.2			13.9	594.5			1.000003
105000.0	9.1	-39.7			13.6	595.2			1.000003
105500.0	8.9	-39.3			13.3	595.8			1.000003

STATION ALTITUDE 3989.00 FEET SE
28 JAN. 62 0900 HRS EST
ASCENSION NO. 32

TABLE 14

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE AIR	TEMPERATURE DEWPOINT	RELATIVE HUMIDITY	WIND DATA DIRECTION	WIND DATA SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE		PERCENT	DEGREES(TN)	KNOTS
850.0	4993.	11.3	-3.0	35.	173.0	8.9
800.0	6651.	10.2	-5.2	33.	179.9	10.2
750.0	8402.	6.8	-6.3	33.	204.3	10.5
700.0	10247.	2.7	-11.0	34.	230.5	24.8
650.0	12200.	-1.0	-15.0	31.	236.4	27.7
600.0	14290.	-3.5	-17.0	29.	252.8	30.3
550.0	16539.	-6.0	-23.1	20.	250.8	39.7
500.0	18951.	-13.3	-21.3	51.	240.7	41.2
450.0	21555.	-19.4	-30.3	33.	253.1	47.4
400.0	24393.	-25.8	-29.4	69.	265.1	54.8
350.0	27532.	-32.8	-39.5	67.	273.0	63.5
300.0	31032.	-40.7			274.9	68.4
250.0	35060.	-49.8			269.2	80.7
200.0	39807.	-51.8			267.8	80.8
175.0	42718.	-54.8			266.9	77.5
150.0	45914.	-59.6			262.4	61.5
125.0	49605.	-65.9			261.1	55.6
100.0	54042.	-68.8			265.0	55.5
80.0	58421.	-69.5			267.6	25.3
70.0	61057.	-65.9			267.8	20.8
60.0	64123.	-66.4			262.4	45.0
50.0	67706.	-60.4			252.1	12.7
40.0	72364.	-58.0			256.9	14.3
30.0	78410.	-51.0			252.5	20.1
25.0	82317.	-49.0			231.1	9.9
20.0	87142.	-49.3			80.7	15.4
15.0	93460.	-44.6			76.0	12.9
10.0	102364.	-41.8				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.


DATE
ILME